

Rhodora

JOURNAL OF THE
NEW ENGLAND BOTANICAL CLUB.

Conducted and published for the Club, by

BENJAMIN LINCOLN ROBINSON, Editor-in-chief.

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Vol. 15.

July, 1913.

No. 175.

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Boston, Mass.
1052 Exchange Building.

||| Providence, R. I.
Preston and Rounds Co.

RHODORA.—A monthly journal of botany, devoted primarily to the flora of New England. Price \$1.50 per year (domestic and foreign); single copies 15 cents. Prices of Volumes 1 and 2 (1899 and 1900) on application. All remittances by check or draft, except on Boston or New York, must include ten cents additional for cost of collection. Notes and short scientific papers, relating directly or indirectly to the plants of the northeastern states, will be gladly received and published to the extent that the limited space of the journal permits. Forms will be closed five weeks in advance of publication. Authors (of more than one page of print) will receive 25 copies of the issue in which their contributions appear. Extracted reprints, if ordered in advance, will be furnished at cost.

Address manuscripts and proofs to

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Subscriptions, advertisements, and business communications to

W. P. RICH, 300 Massachusetts Avenue, Boston, Mass.

Single copies may be had from

E. L. RAND, Corresponding Sec'y N. E. Botanical Club,

1052 Exchange Building, Boston, Mass.

Entered at Boston, Mass., Post office as Second Class Mail Matter

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JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

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SOUTHERLY RANGE EXTENSIONS IN ANTENNARIA.

BAYARD LONG.

THE appearance in print of the New Gray in 1908 with its prepossessing treatment of *Antennaria* — descriptions with actual distinctions; dichotomous keys with ample contrasting characters; excellent drawings by Mr. Schuyler Mathews which illustrate and do not obscure — was largely responsible for the increased interest which some of us at Philadelphia began to take in this genus which we had previously considered as sacred to the specialist.

Our determination to collect as extensively as possible in this group during the following spring was made known to Professor Fernald and his interest solicited. He very generously agreed to examine and name all our prospective material. So with such encouragement for obtaining a knowledge of a genus so thoroughly neglected by us, we felt we were making a most auspicious onset upon *Antennaria*. We were not so over-sanguine as to hope for new species in the Middle Atlantic States but we knew that there were additions to be made to the knowledge of at least the local distribution of our species, if not to their general geographic range.

At that time there had been, apparently, no published records or notes on the Antennarias to be found in the Philadelphia region since Professor Porter's *Flora of Pennsylvania* in 1903 and Keller and Brown's *Flora of Philadelphia and Vicinity* in 1905. From these two sources it appeared that there were but three species, *Antennaria plantaginifolia*, *A. neglecta*, and *A. neodioica* commonly recognized to be generally distributed, and two others, *A. Parlinii*, noted from a single locality in the one book, and *A. fallax* recorded in the other volume,

also from but one station. Naturally our interest during local trips largely centered about these last two supposedly rare species, and it was not long before a little active collecting showed them to be frequent about Philadelphia or even locally common.

Professor Fernald had encouraged us with the opinion that *A. canadensis*, *A. occidentalis*, and *A. petaloidea* ought to be extended south into our upland counties, so a trip in the middle of May, 1909, with Mr. S. S. Van Pelt into the glaciated area of Northampton County, Pennsylvania, lying just south of the Blue, or Kittatinny, Mountains, held at least promise of some possibilities in *Antennaria*. In the Herbarium of the Academy of Natural Sciences we had seen a specimen of *A. canadensis* from the Catskills and so during this trip we had this species continually in mind. The hope of finding it was not realized here but a tall form with large heads and strikingly handsome white petaloid bracts (suggesting, in general, *A. fallax* with round-tipped leaves) collected at the foot of the Big Offset north of Bangor, and again between Johnsonville and Mount Bethel, proved to be *A. occidentalis* — a northern species heretofore known, in the eastern part of its range, only as far south as western Massachusetts and New York.

The work of Mr. Harold W. Pretz in Lehigh County, Pennsylvania, has given us additional information on the local distribution of *Antennaria* and has also added another northern species to our local flora. Through two seasons he has collected extensively and has generously allowed me the use of his material. To Mr. Pretz belongs the credit of making known in our region *Antennaria petaloidea* — a species not previously recorded south of New York State. His station is at Corning, in the red-shale district of the extreme southern part of Lehigh County, at the head of the Perkiomen Valley which supports so many interesting and often local species.¹ Two other collections of his give additional evidence of *A. occidentalis* at localities still farther south than the Bangor stations. The one, of handsome staminate plants with characteristic basal leaves, Professor Fernald

¹ Here occur two of our most southeasterly stations in Pennsylvania for *Luzula saltuensis*, as well as stations for *L. campestris* var. *multiflora* which finds the extreme limit of its range on the southeast near Philadelphia. Among species of characteristic occurrence may be mentioned *Juniperus communis*, *Oryzopsis racemosa*; *Polygonatum biflorum*, *Corylus rostrata*, *Acer spicatum*, *Lonicera dioica* — all types which come into the Philadelphia area from the north or northwest and which become rare and localized south or southeast of the Perkiomen Valley.

agrees probably represents this species. The colony was found in the vicinity of the Blue Mountains below Lehigh Gap Station. The other collection seems to me to be satisfactory *A. occidentalis* but Professor Fernald is inclined to feel that it approaches *A. fallax*. These plants are also from Corning, where Mr. Pretz tells me *Antennarias* abound in the greatest profusion. The country is here quite hilly with often abrupt rises of several hundred feet, the general elevation ranging from four hundred to over a thousand feet.

Our most successful *Antennaria* hunt, the one most full of surprises, was during a trip over Decoration Day in 1909 with Mr. E. B. Bartram into the mountains of the western part of Virginia near the Natural Bridge. The very first morning's explorations brought to light, almost within sight of the famous bridge, two of the most interesting additions to the flora of this region. While I was expending my enthusiasm on two beautifully distinct forms of *Polygala Senega* Mr. Bartram was the fortunate discoverer of the first colony of *Antennaria canadensis*. The plants were growing in large tangled mats on a moist, shaded, woodland bank. The leaves of the first colony examined seemed to be much longer, narrower and more pointed than in the common plant of the north but other plants were quite characteristic. Although so far south and occurring at only fifteen hundred feet elevation, the inflorescences were still mostly quite fresh and in good collecting condition. Only a few colonies of this species were found unfortunately, but this deficiency was amply made up by the abundance of *Antennaria Parlinii* everywhere in the rich, moist, rocky woods along Cedar Creek below the Bridge. Considerable variation on leaf-form was found in the many colonies collected. A form with oblong, rather obtuse leaves seemed to prevail. Both typical *Parlinii* and Prof. Greene's *arnoglossa* (with broad, white, petaloid bracts) occurred, but the former was noticeably the commoner. Unlike *A. canadensis*, plants with fresh inflorescences were very rare; the heads were commonly quite dried and withered.

These two species showed rather considerable range extensions. *A. Parlinii* does not appear to be credited further south than the District of Columbia region, about one hundred fifty miles to the north of the Natural Bridge, while the nearest station known to me for *A. canadensis* is that of Mr. C. S. Williamson at Platte Clove in the Catskills, approximately four hundred miles distant.¹ The most

¹ *Bartonia*, iii, 30 (1911).

southwesterly stations noted in Connecticut in the recent Catalogue¹ of the plants of that state are at about the same distance.

In lately re-examining our *Antennarias* in the general collection of the Academy two sheets of plants of particular interest were found. These were both collected by C. W. Short, a name inseparably associated in botany with that of Kentucky. His labels, like those of many of the botanists of somewhat earlier days, oftentimes bear rather meager information. This is unfortunately true in the present case, but Mr. Stewardson Brown assures me that when there is no intimate locality noted the specimen came from the Lexington region of Kentucky, this being his regular and consistent method of labelling. The one sheet bears two plants, in good condition, with this label in his own hand:—

“ *Gnaphalium plantagineum*
On thin clayey lanes. Ky- fl: May
C. W. Short”

The other sheet bears three plants with a rather similar label. The interesting point is that only one of the plants is what is now known as *Antennaria plantaginifolia*, while the remainder are specimens of the large-leaved series in which both the basal leaves and those of the stolons are bright green and glabrous above from the first — quite definitely referable to *A. Parlinii*.²

Although the basis of this record may not be satisfactorily conclusive for Lexington, no doubt need be cast upon it for Kentucky. From the occurrence of *A. Parlinii* as far west as Iowa, taken into consideration with its abundance in the lower altitudes of the Blue Ridge at Natural Bridge, on the Potomac at Washington, and at low elevations in Pennsylvania, New Jersey, and Delaware, we would rather expect to find it occurring in country of no great elevation on the western side of the southern Alleghanies — country very like the Lexington region.

The extensions of range recorded in these notes seem to be very logical and natural; they are all southerly extensions along lines of

¹ Flowering Plants and Ferns of Connecticut. Ct. Geol. and Nat. Hist. Surv. Bull., xiv. 389 (1910).

² The second sheet mentioned shows staminate plants, the only specimens of this sex of *A. Parlinii* that have come under my notice, except some from above Washington along the Potomac, and a single large and luxuriant colony found by Mr. C. S. Williamson and myself at Harrington, Delaware. The extreme rarity of staminate plants would seem to be an actual, demonstrated fact and not one at all to be accounted for by an insufficiency of intensive field-work.

distribution well recognized. *Antennaria canadensis*, *A. occidentalis*, and *A. petaloidea* are species characteristic of the region north of Pennsylvania. Here they extend through New England and eastern Canada westward half way or more across the continent. A southerly advance of Canadian types such as these would be found along the general line of the Alleghanies, where they find climatic and temperature conditions similar to those of their northern home. These three plants will probably be found to belong to a group whose distribution may be typified by such species as *Glyceria Torreyae*, *Tiarella cordifolia*, *Pyrus americana*, *Acer pennsylvanicum*, *A. spicatum*.

Although *Antennaria canadensis* has not yet, to the best of my knowledge, been collected between the Catskills and Natural Bridge, I feel that with future work in the Alleghanies its occurrence in Pennsylvania will be established. An interesting analogy would be shown should its distribution prove to be similar to that of *Thuja occidentalis*, which, despite the natural assumption that it extends from its northern home all along the Alleghanies to its southern limit in North Carolina, appears to be quite unknown in a native state in the wide mountain area of Pennsylvania.¹

In our present knowledge of *A. petaloidea* and *A. occidentalis* extending down along the mountains only as far as Pennsylvania, their distribution is closely paralleled by such species as *Alnus incana*, *Lonicera canadensis*, *Lobelia Kalmii*.

Antennaria Parlinii is found to have a more southerly distribution than the other three species, occurs at lower altitudes, and extends well down into the northern coastal plain. It belongs to quite a different category — not a Canadian but an Alleghanian type. More properly it might be called an Alleghanian type encroaching on the Carolinian Zone. The impossibility of sharply separating the several floras in eastern America is a well-known fact.² There would seem to be sufficiently good evidence, however, for classing *A. Parlinii* as above. Its distribution in Maine — absent from the northern boreal portion but extending through the southern part (Alleghanian Zone) and in a broad arm well up the Penobscot Valley — is particularly interesting and indicative of the life-zone to which it belongs. Its occurrence through southerly New England in general, up along the

¹ See Porter, Flora of Pennsylvania, 3 (1903); Taylor, Torreya, ix. 206 (1909), xii. 103 (1912).

² See Fernald, Expedition to Newfoundland. RHODORA, xiii. 137, 139 (1911).

Connecticut and Hudson Valleys, as well as its absence in the higher mountains of Vermont and New Hampshire, points to the same conclusion. South of New England and New York it spreads, like a great many other species, into the northern extensions of the Carolinian. In all probability it will be shown to belong to a distribution-group which is typified by *Lycopodium complanatum* var. *flabelliforme*, *Populus grandidentata*, *Quercus coccinea*, *Q. bicolor*, *Pyrola americana*.

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.

REPORTS ON THE FLORA OF THE BOSTON
DISTRICT,— XVII.

GRAMINEAE.

ECHINOCHLOA.

E. COLONA (L.) Link. Cotton waste from mill, Malden (*F. S. Collins*, Aug. 19, 1888, specimen in herb. Yale University).

E. CRUSGALLI (L.) Beauv. Wet shores and waste places, common throughout.

E. FRUMENTACEA (Roxb.) Link. Occasionally persistent from cultivation, and sometimes sporadic in waste land.

E. WALTERI (Pursh) Nash. Swamps and salt marshes near the coast; Swampscott, Medford, Boston, Dorchester, Scituate.

SETARIA.

S. GLAUCA (L.) Beauv. Fields and waste places, common throughout.

S. ITALICA (L.) Beauv. Introduced in waste places from cultivation, frequent. A variable species, the variations of which are now being studied.

S. VERTICILLATA (L.) Beauv. Waste land; Newburyport, Salem, Charlestown, Cambridge, Boston, Dorchester.

S. VIRIDIS (L.) Beauv. Fields and waste places, common throughout.

CENCHRUS.

C. CAROLINIANUS Walt. In sandy soil and waste places, apparently introduced; at ten scattered stations.

ZIZANIA.

Z. aquatica L. Wet borders of Concord and Charles Rivers and their tributaries, in Lowell, Wayland, Framingham, Newton, Wellesley, Needham, Medfield. An uncommon species in our region.

Z. palustris L. Rivers and ditches; frequent throughout.

LEERSIA.

L. oryzoides (L.) Sw. Wet places, common throughout.

L. oryzoides (L.) Sw., forma **glabra** A. A. Eaton. "Tidal shores of the Merrimac river near 'the laurels' in the western part of Newburyport" (*A. A. Eaton*, Sept., 1902; *A. A. Eaton & M. L. Fernald*, Oct. 2, 1902, specimens in herb. N. E. Botanical Club). See *RHODORA* v. 118, 1903.

L. virginica Willd. Moist woods, occasional from Walpole northward.

PHALARIS.

P. arundinacea L. Swamps, marshes and pond margins, locally abundant. No reports from southeastern portion of district.

P. arundinacea L., var. **PICTA** L. Persistent and occasionally spreading from old gardens; apparently native in Stoughton (*S. F. Blake*, June 15, 1912).

P. CANARIENSIS L. Waste places and dumps around cities and towns, occasional.

ANTHOXANTHUM.

A. ODORATUM L. Fields, pastures and roadsides; very common throughout.

A. PUELII Lecoq & Lamotte. South Boston (*C. E. Perkins*, June 25, 1879); Jamaica Plain [W. Roxbury] (*E. & C. E. Faxon*, July 8, 1883); Milton (*G. G. Kennedy*, June 27, 1897).

HIEROCHLOË.

H. odorata (L.) Wahlenb. Meadows and marshes, both brackish and fresh; common along the coast, inland on the Concord and Shawsheen Rivers; meadow, frequent, Wellesley (*K. M. Wiegand*, May, 1912).

ORYZOPSIS.

O. asperifolia Michx. Dry open woods, frequent.

O. pungens (Torr.) Hitchc. Dry sandy fields, and open woods, frequent throughout.

O. racemosa (Sm.) Ricker. Dry rocky woods, rare; Georgetown, Essex, Malden, Woburn. "Melrose (Wm. Boott; specimen in herb. of)." according to Dame & Collins, Fl. Middlesex Co. 126, 1888, as *Oryzopsis melanocarpa* Muhl.

STIPA.

S. avenacea L. Dry open woods, rare; Wakefield, Woburn, Malden, Medford, Milton.

ARISTIDA.

A. dichotoma Michx. Dry sandy soil, common throughout.

A. gracilis Ell. Sandy soil, frequent from Hingham and Sharon northward.

A. purpurascens Poir. Dry sandy soil, scattered stations, throughout.

A. tuberculosa Nutt. Plum Island (*J. Robinson*, Aug. 31, 1876); Ocean Spray, Winthrop (*H. A. Young*, Sept. 28, 1878); Winthrop (*C. E. Perkins*, Sept. 6, 1882); Winter Pond, Winchester (*C. E. Perkins*, Sept. 6, 1882). The last reference is probably an error, since this species is ordinarily confined to coastal sands, and Perkins collected it on September 6, 1882, at Winthrop, as cited above. This is the same date that appears with the specimen said to come from Winter Pond. The field-label accompanying the Winthrop material is in Perkins's own hand, but the material labelled "Winter Pond" is marked in another hand, presumably through a confusion of labels.

MUHLENBERGIA.

M. capillaris (Lam.) Trin. Hingham, rare (*T. T. Bouv *, no date; *J. R. Churchill*, Oct. 5, 1887). We know of only two other records of this species from New England, namely, Hamden and New Haven, Connecticut. See Flowering Plants and Ferns of Connecticut, Conn. Bot. Society, 62, 1910.

M. foliosa Trin. Moist soil; Andover, Lawrence, Dracut, Groton, Marlboro, Wellesley, Natick.

M. mexicana (L.) Trin. Woods and thickets; frequent.

M. racemosa (Michx.) BSP. Meadows and low ground; occasional from Blue Hills and Walpole northward.

M. Schreberi J. F. Gmel. Roadsides and fields, introduced around towns and cities, perhaps native in some places. Scattered stations from Braintree and Wellesley northward.

M. sobolifera (Muhl.) Trin. Rocky woods and ledges; occasional from the Blue Hills and Needham northward.

M. sylvatica Torr. Damp woods and roadsides; occasional from the Blue Hills northward.

M. tenuiflora (Willd.) BSP. Damp rocky woods; ten stations, from Blue Hills northward.

BRACHYELYTRUM.

B. erectum (Schreb.) Beauv. Moist woods, occasional.

HELEOCHLOA.

H. SCHOENOIDES (L.) Host. Made land, South Boston flats, very abundant.

PHLEUM.

P. PRATENSE L. Fields and roadsides, very common throughout.

ALOPECURUS.

A. AGRESTIS L. Adventive in waste places; Lowell, Charlestown, Boston, South Boston.

A. geniculatus L. Moist soil, occasional from Norwood northward.

A. geniculatus L., var. **aristulatus** Torr. Wet places, from Hingham, Dorchester and Natick northward; also on shore of Massapoag Lake, Sharon (*S. F. Blake*, June 26, 1911).

A. PRATENSIS L. Fields and meadows, generally introduced and abundant.

SPOROBOLUS.

S. asper (Michx.) Kunth. Dry sand and gravel; Ipswich, Danvers, Medford, Somerville, Boston, Dorchester, Duxbury; Hingham, according to T. T. Bouvé, Botany of Hingham, in History of the town of Hingham i. pt. 1, 134, 1893.

S. cryptandrus (Torr.) Gray. Sandy and gravelly soil at numerous stations along the coast; also at Lowell, Dracut, and Winter Pond, Winchester.

S. uniflorus (Muhl.) Scribn. & Merr. Meadows and bogs, common throughout.

S. vaginiflorus (Torr.) Wood. Dry sterile soil; common throughout.

AGROSTIS.

A. alba L. Dry and moist soil; not reported from southeast, but common elsewhere.

A. alba L., var. **aristata** Gray. Meadows and moist places; Ipswich, Woburn, Melrose, Medford, Carlisle, Newton, Dorchester.

A. alba L., var. **maritima** (Lam.) G. F. W. Mey. Moist soil; Gloucester, Revere, Saugus, Stoneham, Charlestown, Boston, Hingham.

A. alba L., var. **VULGARIS** (With.) Thurb. Fields and meadows, common throughout.

A. antecedens Bicknell. (Bull. Torr. Bot. Club xxxv. 473-475, 1908). West Boston dump (*C. W. Swan*, June 27, 1881, specimen in herb. Yale University). Common on Nantucket and Long Island.

A. canina L. Meadows and damp places; occasional in central and northern portion of district.

A. hyemalis (Walt.) BSP. Moist and dry soil, common throughout.

A. perennans (Walt.) Tuckerm. Woods, common throughout.

GASTRIDIUM.

G. AUSTRALE Beauv. In wool waste, Lowell and Billerica (*C. W. Swan*, July 24, 1883); S. Boston (*C. E. Perkins*, July 20, 1882). A native of Europe, but probably adventive here from California, where it is naturalized (Dame & Collins, *Fl. Middlesex Co.* 127, 1888).

POLYPOGON.

P. MONSPELIENSIS (L.) Desf. Waste places, rare; North Chelmsford, Lowell, Dracut, Billerica, Charlestown, Boston, South Boston.

CALAMAGROSTIS.

C. canadensis (Michx.) Beauv. Swamps and wet places, common throughout. A peculiar form of this species collected in Boxford, August 6, 1899, by E. F. Williams was sent to Mrs. Chase and has been returned by her with the following note, dated April 23, 1913; "The loose panicle of long slender branches, and the long callus hairs indicate *C. canadensis* with which the specimen agrees perfectly except in having spikelets scarcely 2.5 mm. long. I do not find any specimens with spikelets quite so small as this, but there are a number with spikelets less than 3 mm. These are from Saskatchewan, Montana, Wisconsin, and District of Columbia, showing no geographical limitation."

C. cinnoides (Muhl.) Barton. Low thickets and borders of woods, never abundant; occasional in other parts of district, but not reported from west or southwest.

C. Pickeringii Gray. Meadow north of Haggett's Pond, Andover (*J. Robinson*, June 26, 1878; June 27, 1879; June 26, 1880); swamps, Andover (*J. H. Sears*, September, 1880); meadows along Fish Brook, Andover (*A. S. Pease*, July 27, 1903; July 7, 1904); sandy bank, Wilmington (*E. F. Williams*, June 11, 1899).

AMMOPHILA.

A. arenaria (L.) Link. Sand-dunes and beaches along the coast, common.

APERA.

A. SPICA-VENTI (L.) Beauv. Made land, S. Boston (*C. E. Perkins*, July 1, 1878 and July 5, 1881; *E. & C. E. Faxon*, Oct. 5, 1878 and July 3, 1879); "in a field at West Newbury (*W. P. Conant*)" according to Robinson, Fl. Essex Co. 123, 1880 (as *Agrostis Spica-venti* L.).

CINNA.

C. arundinacea L. River borders, swamps and wet woods; common elsewhere, but not reported from the extreme south.

[*C. latifolia* (Trev.) Griseb. "Lawrence, Danvers (J. H. Sears); West Newbury (W. P. Conant) etc." according to Robinson, Fl. Essex Co. 124, 1880, as *C. arundinacea*, L., var. *pendula*, Gray. There are no specimens in the Peabody Academy of Science.]

HOLCUS.

H. LANATUS L. Fields and meadows, very common throughout.

SPHENOPHOLIS.

S. nitida (Spreng.) Scribn. Woods, rare; Melrose, Malden, Wellesley, Canton, Randolph.

S. obtusata (Michx.) Scribn. Dry shaded ledges north of Crooked Pond, Boxford (*A. S. Pease*, June 27, 1912); West Boston flats (*C. W. Swan*, June 27, 1881 and June 25, 1882); Blue Hill, Milton (*E. & C. E. Faxon*, no date); "Concord (E. S. Hoar; specimen in herb. of); Watertown (Bigelow's Fl. Bost., under *Aira trunecata*, Muhl.)" according to Dame & Collins, Fl. Middlesex Co. 129, 1888, as *Eatonia obtusata* Gray.

S. pallens (Spreng.) Scribn. Meadows and ditches, rare; nine stations from Blue Hills northward (1877-1896).

S. pallens (Spreng.) Scribn., var. **major** (Torr.) Scribn. Danvers (*J. H. Sears*, June 4, 1879, specimen in herb. Peabody Academy of Science).

S. palustris (Michx.) Scribn. Swamps and meadows; Andover (*A. S. Pease*, June 8, 1903); "well meadow head," Concord (*H. D.*

Thoreau, June 19, 1859); “Heywood meadow near R. R. spring in brush,” Concord (*H. D. Thoreau*, June 29, 1859); Needham (*T. O. Fuller*, June 9–10, 1887); Purgatory Swamp, Norwood (*C. E. Faxon*, June 17, 1879; *C. W. Swan*, June 17, 1882; *E. F. Williams*, June 22, 1896 and June 4, 1899).

TRISETUM.

T. spicatum (L.) Richter. Andover (*J. Blake*, June 26, 1882); rocky bank of Merrimac and sandy wood-road near Pomp’s Pond, Andover (*A. S. Pease*, Sept. 19, 1903; June 4 and 20, 1904); Bateman’s Pond, Concord (*C. W. Swan & C. W. Jenks*, July 6, 1888).

DESCHAMPSIA.

D. caespitosa (L.) Beauv. Shore of Haggett’s Pond, Andover (*C. H. Knowlton*, June 20, 1903); shore of Merrimac River, Dracut and Lowell (*C. W. Swan*, July 20, 1882); introduced on land of J. R. Churchill, Dorchester (*J. R. Churchill*, 1884 to date); Chelmsford (*C. W. Swan*) according to Dame & Collins, Fl. Middlesex Co., 128, 1888.

D. flexuosa (L.) Trin. Dry ground; not reported from western and southwestern towns, but frequent elsewhere.

AVENA.

A. HIRSUTA Roth. South Boston dump (*C. W. Swan*, June 6, 1886). “Habitat passim in Europae cultis,” according to Roth, Catalecta Botanica iii. 19, 1806. Specimen in herb. Yale University.

A. HYBRIDA Koch. Brickyard, Newburyport (*E. F. Williams*, July 31, 1898). An Old World species. Specimen in herb. N. E. Botanical Club.

A. SATIVA L. Fields, roadsides and waste places, frequent throughout.

ARRHENATHERUM.

A. ELATIUS (L.) Beauv. Fields and roadsides, occasional.

DANTHONIA.

D. compressa Aust. Dry ground, mostly in open woods; frequent, especially southward.

D. spicata (L.) Beauv. Dry places, common throughout.

SPARTINA.

S. glabra Muhl., var. **alterniflora** (Loisel.) Merr. Salt marshes, frequent along the coast.

S. glabra Muhl., var. **pilosa** Merr. Salt marshes, abundant along the coast.

S. Michauxiana Hitchc. Wet shores and marshes, both salt and fresh; frequent, especially on the coast.

S. patens (Ait.) Muhl. Salt marshes, abundant along the coast.

S. patens (Ait.) Muhl., var. **caespitosa** (A. A. Eaton) Hitchc. Causeway, Salisbury (*A. A. Eaton*, Sept. 2, 1898); Plum Island (*A. A. Eaton*, Aug. 29, 1896); Newbury (*A. A. Eaton*, August, 1897).

S. patens (Ait.) Muhl., var. **junccea** (Michx.) Hitchc. Edges of salt marshes, occasional; Ipswich, Revere, Cambridge, Boston, Dorchester.

CYNODON.

C. DACTYLON (L.) Pers. South Boston flats (*C. E. Perkins*, Aug. 25, Sept. 2 and Oct. 3, 1879; Sept. 5, 1881).

CHLORIS.

C. ELEGANS HBK. South Boston flats (*C. E. Perkins*, Aug. 2, 1882). Native of Texas and northern Mexico.

BOUTELOUA.

B. GRACILIS (HBK) Lag. Made land, South Boston flats (*C. E. Faron*, Oct. 5, 1878). Native of northwestern Canada, western United States and Mexico.

[*B. oligostachya* (Nutt.) Torr. "Near the old carpet factory,

Tapleyville, 1880" (*J. H. Sears & J. Robinson*) according to Robinson, Fl. Essex Co. 125, 1880. No specimen seen.]

B. RADICOSA (Fourn.) Griffiths. South Boston flats (*C. E. Perkins*, 1882). Native of southwestern United States and Mexico.

B. TEXANA Watson. South Boston flats (*C. E. Perkins*, Aug. 2, 1882). Native of Texas and Mexico.

DACTYLOCTENIUM.

D. AEGYPTIUM (L.) Richter. Cotton waste from mills, Malden (*F. S. Collins*, Aug. 19, 1888; *F. S. Collins & C. W. Swan*, Sept. 14, 1888).

ELEUSINE.

E. INDICA Gaertn. Waste places, rare; Salem, Lowell, Reading, Malden, Boston, South Boston.

LEPTOCHLOA.

L. FASCICULARIS (Lam.) Gray. Adventive, Boston (*C. W. Swan*, Sept. 17 and 19, 1887, specimens in herb. Yale University and in herb. Walter Deane).

L. FILIFORMIS (Lam.) Beauv. Cotton waste from mills, Lowell (*C. W. Swan*, Aug. 16 and Sept. 6, 1883); Malden (*F. S. Collins*, Sept. 25, 1887; *F. S. Collins & C. W. Swan*, Sept. 14, 1888).

L. IMBRICATA Thurb. Woollen mill waste, N. Billerica, (*C. W. Swan*, Sept. 18, 1885, specimens in herb. Yale University and N. E. Botanical Club). Native of Arizona.

PHRAGMITES.

P. communis Trin. Wet places near the coast, becoming more frequent southward; inland at Andover and S. Lincoln.

TRICUSPIS.

T. flava (L.) Hubbard. (*Tridens flavus* (L.) Hitchc. Gray's Manual, 7th ed. See Hubbard, RHODORA xiv. 185-6, 1912). Campus lawns, Wellesley (*K. M. Wiegand*, Sept. 16, 1910); abundant in old fields, Southboro (*A. J. Eames*, August, 1909).

TRIPLASIS.

T. purpurea (Walt.) Chapin. Sandy places; Salisbury, Ipswich, Winthrop, Winchester, Dorchester, Hingham. "Nahant beach" according to Robinson, Fl. Essex Co. 125, 1880.

ERAGROSTIS.

E. capillaris (L.) Nees. Dry sand and gravel; Essex, Andover, Lowell, Malden, Needham, Canton; "observed by myself in sunny situations in the environs of Salem, chiefly about cultivated ground," according to C. Pickering, Chronological History of Plants, 810, 1879.

E. MEGASTACHYA (Koeler) Link. Waste ground and roadsides; abundant around Boston, occasional elsewhere.

E. MINOR Host. Waste places rare; Westford, Lowell, Cambridge, Boston, Roxbury, Dedham, Hingham.

E. pectinacea (Michx.) Steud. Dry fields, common throughout.

E. pectinacea (Michx.) Steud., var. **spectabilis** Gray. Near Kimball's Pond, Amesbury (*A. A. Eaton*, 1895); Andover (*A. S. Pease*, Sept. 22, 1901); Tewksbury (*A. S. Pease*, Sept. 17, 1903); Hingham, according to T. T. Bouvé, Botany of Hingham, in History of the town of Hingham i. pt. 1, 135, 1893.

E. pilosa (L.) Beauv. Gravel and sand; common and abundant.

Notes and corrections on the preceding list. On page 56, lines 5 and 6 should be deleted. The reference to *Panicum Ashei* is an unintentional repetition, under a now discarded name, of what is duly entered, on page 59, under *P. umbrosum*.

On page 56, line 18, for *known* read *recorded*.

C. H. KNOWLTON S. F. BLAKE WALTER DEANE	}	Committee on Local Flora.
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TWO NEW CARICES FROM NEWFOUNDLAND.

M. L. FERNALD AND K. M. WIEGAND.

CAREX GRACILLIMA Schwein., var. **macerrima**, n. var., 3-5 dm. alta; foliis 3-5 mm. latis; spiculis lateralibus pendulis 12-20-floris tenuissimis 1.5-2 mm. crassis 1.5-3 cm. longis; squamis ♀ albidis 2 mm. longis; perigyniis nunquam inflatis trigonis utroque acutis vel sub-acutis brunneis 2-2.8 mm. longis 1-1.2 mm. latis; achaeniis late ellipsoideis utroque rotundatis 1.6-1.8 mm. longis, 1 mm. latis.

Plant low, 3-5 dm. high: leaves 3-5 mm. broad: lateral spikes pendulous, 12-20-flowered, very slender, 1.5-2 mm. thick, 1.5-3 cm. long: pistillate scales whitish, 2 mm. long: perigynia not at all inflated, trigonous, acute or acutish at both ends, brown, 2-2.8 mm. long, 1-1.2 mm. wide: achenes broadly ellipsoid, rounded at both ends, 1.6-1.8 mm. long, 1 mm. wide.—NEWFOUNDLAND: moist open grass-land near sea-level, York Harbor, Bay of Islands, July 27, 1908, *E. H. Eames & C. C. Godfrey*, no. 5937 (TYPE in Gray Herb.); meadow on Governor's Island, Bay of Islands, July 28, 1908, *Eames & Godfrey*, no. 5938.—Distributed as *C. gracillima*, var. *humilis* Bailey and reported by Eames as "occasional about the Bay of Islands, where it appears to be a well-marked variety."¹ In a letter Dr. Eames says further: "I was interested in this thing at the time, so had it in mind thereafter. And, although I collected but two numbers, my 'notes' state that it was 'Frequent in meadows near sea-level' about York Harbor. I saw it at intervals near the shore for about two miles, and on two islands off-shore."

C. gracillima, var. *humilis*, as defined by Bailey, is merely dwarfed *C. gracillima*: "In open places and on harder soils, the species becomes dwarfed, and may then be known as Var. *HUMILIS*. Smaller, the leaves narrower; spikes often very small, two- to twelve-flowered, erect or ascending; perigynium mostly smaller."² The plant from the Bay of Islands is clearly different in its pendulous many-flowered spikes and in its uniformly dark brown firm and acute perigynia. In these characters the plant suggests the narrow-leaved *C. capillaris*, var. *elongata* Olney and it may, when better known, prove to be a fertile hybrid of *C. gracillima* with that plant.

¹ *RHODORA*, xi. 90 (1909).

² Bailey, Mem. Torr. Bot. Cl. i. 71 (1889).

CAREX LENTICULARIS Michx., var. *eucycla*, n. var., a forma typica recedit perigyniis late ovalibus vel suborbicularibus utroque rotundatis, 1.8 mm. longis; squamis ♀ breviter oblongis vel suborbicularibus 1.5–2 mm. longis.

Differing from typical *C. lenticularis* in having the perigynia broad-oval or suborbicular and rounded to base and apex, 1.8 mm. long; scales of the pistillate spikes short-oblong or suborbicular, 1.5–2 mm. long.—NEWFOUNDLAND: gravelly margin of Birchy Pond Stream, East Branch of the Humber, Fernald & Wiegand, nos. 2826, 2833 (TYPE in Gray Herb.).—In typical *C. lenticularis* the ovate to narrowly elliptical perigynia are acutish at base and apex and 2.2–3 mm. long, and the scales are distinctly longer than in the rounder-fruited variety from central Newfoundland. Var. *eucycla* in its short roundish perigynia suggests var. *paulifructus* Kükenthal, described from the state of Washington; but that is said to have the pistillate scales with broad white-hyaline margins, while var. *eucycla* has the fuscous scales with extremely narrow or almost imperceptible pale margins.

SOME MAINE PLANTS.

RALPH C. BEAN.

THE following plants, collected for the most part during the summer of 1912, have been of special interest to me and the localities for some of them are, I think, worth recording.

EUPHRASIA AMERICANA Wetst. I have been interested in watching this plant, which has occupied the same locality — a country roadside a half mile south of Clinton Village — for ten years. The area covered does not appear to vary, nor have I been able to find other stations in the region. My herbarium specimens were collected August 19, 1904, August 4, 1909, and August 11, 1911.

PODOSTEMON CERATOPHYLLUM Michx. I found this plant first in the summer of 1909 in a brook in Winslow. Its strange appearance entirely baffled me at the time. I believe it was then the second station in Maine. I collected it again in the same brook, which is an outlet for Pattee Pond in Winslow, on July 11, 1912. It was growing closely adhering to the stones in the shallow water.

POTENTILLA FRUTICOSA L. was collected in a pasture at Pittsfield, on July 23, 1912, and in a pasture in Center Minot on August 14, 1912. Before this time I had not seen the plant in any of the towns near Clinton.

PRUNUS VIRGINIANA L., var. *LEUCOCARPA* Wats. This was growing beside a country road in West Minot. I collected on August 14, 1912. The amber-colored fruit was entirely new to me. It has been known in this locality for thirty years at least.

PYCNANTHEMUM VIRGINIANUM (L.) Durand & Jackson. At a distance this had the appearance of a white aster. I collected it on August 27, 1912, in a field near woods one mile south of Clinton Village. This was an entirely new plant for this locality.

UTRICULARIA. During the meeting of the Josselyn Botanical Society at Gardiner in 1912, while on a trip to Nahumkeag pond in Pittston, I found three *Utriculariae*. *U. vulgaris*, L. was growing in the shallow water at the west side of the pond. *U. purpurea* Walt. was found in a similar situation, though but a single plant. *U. gibba* L. was growing on small islands near the same shore. These plants were about 3 cm. high. All three species were collected August 9, 1912.

WAKEFIELD, MASSACHUSETTS.

CALAMAGROSTIS PICKERINGII Gray, var. *debilis* (Kearney) n. comb. *C. breviseta debilis* Kearney, U. S. Dept. Agric. Div. Agrost. Bull. xi. 25 (1898). In Newfoundland we became very familiar with two pronounced tendencies of *C. Pickeringii*, one of rather coarse habit with spikelets large (4–5 mm. long), a comparatively common plant; the other, the commonest grass of bogs and tundra, with often more slender habit and with spikelets small (2.8–3.6 mm. long). Examination of the material in the Gray Herbarium, and especially of the specimens cited by Kearney, shows that the plant with larger spikelets is true *C. Pickeringii* (of which the type is in the Gray Herbarium), while the plant with smaller spikelets closely matches the duplicate type of *C. breviseta debilis*. The characters emphasized by Kearney, however: "Of softer texture; culms sometimes only 2 dm. high, very slender, less rigid, the uppermost internodes much elongated, usually twice as long as both sheath and blade; leaf-blades thinner and rather lax; panicle small (mostly 4 to 10 cm. long, about 1 cm. wide), con-

tracted, almost spiciform, somewhat flexuous; empty glumes narrower and somewhat thinner"; do not properly distinguish the plants, for these characters are found abundantly interchanged in specimens with both large and small spikelets. We would, therefore, rest the var. *debilis* simply on its smaller spikelets rather than upon the inconstant vegetative characters originally used.

Of the 39 collections of *C. Pickeringii*, var. *debilis* examined by us, the following are from outside Newfoundland and it may be of interest to New England botanists to have a record of the stations. NEW HAMPSHIRE: dry bank by B. & M. R. R., 1 mile south of the village, Lancaster, A. S. Pease, no. 12, 272; head of Oakes Gulf, Mt. Washington, Faxon; Mt. Monroe, Faxon; Ethans Pond, Mt. Willey, Pringle (distributed as *C. Pickeringii*, var.), Faxon; Echo Lake, Franconia, William Boott, 1861 (labeled by Dr. Gray "var."), J. W. Chickering (labeled by Dr. Gray "=Boott's pl."), Faxon; Profile Lake, Franconia, Faxon; in sand by cascade, Albany Intervale, W. G. Farlow; meadows, frequent, West Thornton, A. S. Pease, no. 2513; Pelham, F. W. Batchelder. MASSACHUSETTS: north of Haggetts' Pond, Andover, J. Robinson; Fish Brook meadows, Andover, A. S. Pease, nos. 2368, 4260.—M. L. FERNALD and K. M. WIEGAND.

Vol. 15, no. 174, including pages 100 to 116 and plate 104, was issued
11 June, 1913.

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